

Reviewing Pesticide Risk Assessment on Non-Target Arthropods (NTAs): Some Key Issues

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Introduction:

A paradox and its explanation

- EU arthropod populations plummeting at an alarming rate.
- Intensive agriculture, and massive use of pesticides, major cause of decline.
- The paradox: why EU regulation 1107/2009 on pesticides, “the most protective in the world”, could not mitigate this decline?
- The explanation: obsolete and insufficient procedures to assess the risk of pesticides on NTAs.





EFSA revision of the NTAs GD: Work in progress

- Last 10 years: growing consensus on the inadequacy of this GD, but no progress was made.
- June 2024: EFSA mandated by the EC to revise the NTAs GD.
- Work in progress by EFSA.
- However, certain **pitfalls** could jeopardise the effectiveness of the revision, and **must** be addressed.





Overestimating NTAs resilience: the “recovery option”

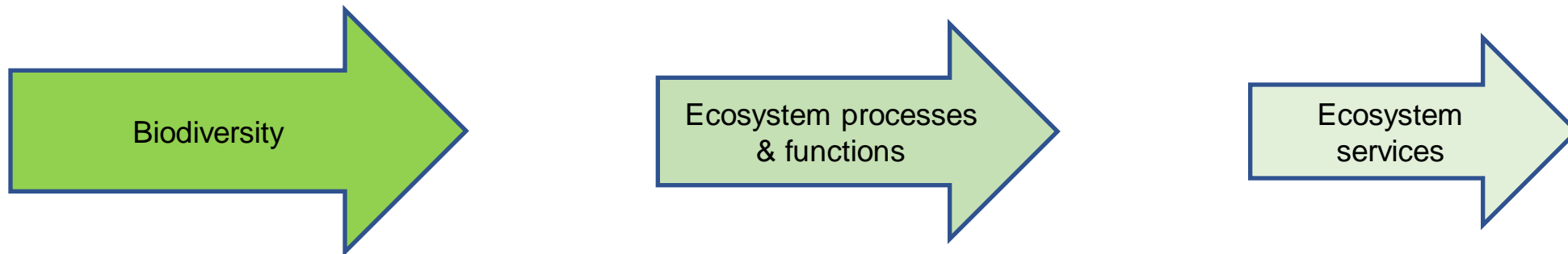
- In GD, different options are employed to establish the level of mortality that can be deemed “acceptable” (SPGs).
- **In the current GD for NTAs**, the “recovery option” is applied: mortality in lab tests should not exceed 50%, but greater **effects (up to 100%) are accepted** if a “potential for recolonisation or recovery at least within one year” is indicated.
- Available studies show that **current protocols to assess NTA recovery are unrealistic and overestimate the resilience of populations**: ‘recovery’ can only be expected in specific and rare cases.
- **A robust specific protection goal is necessary to reverse the on-going decline of NTA populations.**





Misrepresenting ecological dynamics: the concept of “Ecosystem Services for Humans”

- This concept misrepresents ecological dynamics and fails to capture the complexity of ecological interdependencies.
- By placing emphasis on short-term human benefits rather than long-term ecological resilience or persistence, its use in RA risks exacerbating biodiversity loss.
- the ESH concept narrows the scope of regulation 1107/2009 which does not mention “ecosystem services” but considers “biodiversity” and “ecosystems” as a whole (art. 4.e.iii). RA should focus on protecting ecosystem processes and functions.





Overlooking potential Conflicts of Interest - 1)

- Absence of conflict-of-interest policies before current EU Pesticide Regulation (2009), creating vulnerability to undue influence.
- The example of the current GD for NTAs: most of the people who conceived it were working for the agrochemical industry, whose primary goal is to secure market approval for its products (**direct conflict of interests**).

Workshop Sponsors


The following organisations and companies have sponsored the workshop:

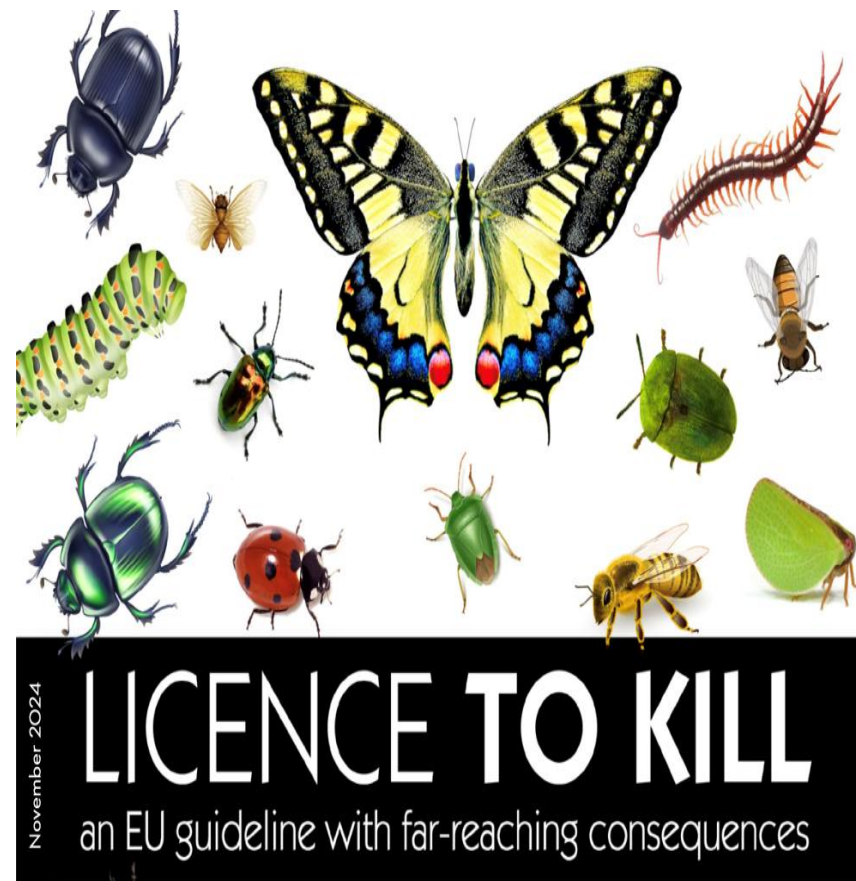
- American Cyanamid
- Aventis
- BASF
- Bayer
- Dow
- Du Pont
- European Commission (support of Member State representatives)
- FMC
- IOBC (support of IOBC members)
- Monsanto
- Novartis Crop Protection AG
- OECD
- Uniroyal
- Zeneca Agrochemicals

List of the sponsors of the workshop organised to draft of the current GD for NTAs (ESCORT 2).



Overlooking potential Conflicts of Interest - 2)

- But **conflicts of interest can also be indirect**, triggered by nonfinancial reasons.
- Concerns about potential industry influence on new guidance : the academic institution in charge of a crucial section of the research for its revision is also conducting similar work for the chemical industry (CEFIC). See *PAN report 2024* 
- Extreme vigilance is necessary in order to avoid elusive forms of conflict of interest.





Conclusions

- Recovery is an unvalidated assumption not underpinned by science, particularly in areas where refuges for NTAs are insufficient. A sounder and safer approach to establish protection goals is needed.
- The use of the ESH concept narrows the scope of regulation 1107/2009 and could jeopardise the long-term resilience of ecosystems. The focus in RA should be on preserving overall ecosystem processes and functions.
- Utmost vigilance and transparency are crucial to avoid elusive forms of conflicts of interest of the experts composing the working groups and research programmes for the revision. A greater number of experts and entomologists should be integrated in the panel.

Contents lists available at ScienceDirect

Biological Conservation

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Biologies
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Insect decline: immediate action is needed

Le déclin des Insectes : il est urgent d'agir

Hervé Jactel^{a,*}, Jean-Luc Imler^b, Louis Lambrechts^c, Anna-Bella Failloux^d, Jean Dominique Lebreton^e, Yvon Le Maho^{f,g}, Jean-Claude Duplessy^h, Pascale Cossartⁱ and Philippe Grandcolas^j

Check for updates

Mitigating the precipitous decline of terrestrial European insects: Requirements for a new strategy

Jan Christian Habel^{1,2} · Michael J. Samways³ · Thomas Schmitt^{4,5}

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Thank you!

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